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**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

ASTRAZENECA AB, AKTIEBOLAGET
HÄSSLE, ASTRAZENECA LP, KBI INC.,
and KBI-E INC.,

Plaintiffs and
Counterclaim Defendants,

v.

HANMI USA, INC., HANMI
PHARMACEUTICAL CO., LTD., HANMI
FINE CHEMICAL CO., LTD, and HANMI
HOLDINGS CO., LTD.,

Defendants and
Counterclaim Plaintiffs.

Civil Action No. 3:11-CV-00760-JAP-TJB

**DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY
JUDGMENT NO. 3: INVALIDITY OF ALL ASSERTED CLAIMS OF
U.S. PATENT NO. 5,714,504 BASED ON "SOLID STATE"**

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I. INTRODUCTION

Hanmi respectfully submits this Reply Brief in Support of Motion for Summary Judgment No. 3.¹ (“Motion 3”) (D.I. 101, 106 and 115). In its opposition brief (D.I. 152) (“Opp.”) and associated filings (D.I. 155, 157, 158), AstraZeneca concedes that the terms “solid state” and “solid state alkaline salt” are nowhere present in the ’504 patent specification (D.I. 155, AZ’s Response to SOF ¶ 14), the ’512 application as filed did not include the terms “solid state” or “solid state alkaline salt” (*id.*, SOF ¶ 30), and that the term “solid state” was first introduced during prosecution, but that AstraZeneca never informed the Patent Office *where* in the specification there existed support for the term (*id.*, SOF ¶¶ 35 and 38). These undisputed facts compel the grant of Hanmi’s motion for summary judgment. *Sitrick v. Dreamworks, LLC, et al.*, 516 F.3d 993, 1000 (Fed. Cir. 2008).

It is beyond any discussion that “solid state” alkaline salts are nowhere defined, described, or disclosed in the ’512 application, confirming that the applicants were not in *possession* of “solid state” alkaline salts as of the filing date. And, AstraZeneca’s argument for “inherent” support is completely undermined by undisputed facts showing that “solid state” cannot necessarily have had a precise meaning in context as of the filing date -- a legal necessity. AstraZeneca’s argument that the “solid” products of the ’504 patent provide written description support for the “solid state” salts that are claimed, requires that “solid state” be construed to mean “solid material” -- a position previously rejected by this Court.

Plaintiffs’ response to Hanmi’s enablement challenge is little more than a litany of reasons why the ’504 patent specification would teach a person of ordinary skill how to make *solid form* materials, rather than *solid state* alkaline salts. But its argument is again contingent

¹ Pursuant to footnote 1 of Hanmi’s opening brief (D.I. 115), this motion now applies to newly-asserted dependent claims 3, 5 and 10 – each of which contains the “solid state” phrase at issue by virtue of dependency. Thus, Hanmi’s Motion 3 seeks a judgment of invalidity of all asserted claims of the ’504 patent.

on the previously rejected construction of “solid state.” AstraZeneca did not seek a construction of “solid state” after having received Hanmi’s invalidity contentions in May, 2011, has now belatedly asked for a construction of “solid state” *for the first time* in its opposition paper, but has provided no reason why the Court should revisit a term it has already construed. In any case, its belated argument that “solid state” means “solid material” is squarely contradicted by intrinsic and extrinsic evidence showing that it does not.

AstraZeneca has raised no genuine issue of material fact under the *Wands* factors, based on its reliance on extrinsic statements by a single witness who -- without citing any support for concluding that only routine experimentation would be required to practice the subject matter of the claims -- opines that the ’504 patent is enabling for solid state alkaline salts of esomeprazole.

Finally, AstraZeneca’s definiteness case again depends entirely on the Court’s adoption of its present construction of “solid state.” Indefiniteness is apparently otherwise conceded.

II. ARGUMENT

A. Astrazeneca Has Failed To Raise A Genuine Issue Of Material Fact Precluding Summary Judgment That The Asserted Claims Of The '504 Patent Are Invalid For Lack Of Written Description

1. Astrazeneca Concedes There Is No Express Disclosure Of “Solid State”

AstraZeneca concedes that the terms “solid state” and “solid state alkaline salt” are nowhere present in the ’504 patent specification. (D.I. 155, SOF ¶14.) AstraZeneca concedes that the ’504 patent does not expressly specify the structure of the products obtained in Examples 1-5 (*id.* at ¶ 16), that none of Examples of the ’504 patent provide PXRD data for the products obtained (*id.* at ¶ 17), that no PXRD spectra are provided for the products of Examples 6 and 7 (*id.* at ¶ 18), and that none of the Examples of the ’504 patent refer to chemical and physical stability, solubility, morphology, calorimetric behavior, hygroscopicity, polymorphism, or photostability for the products obtained (*id.* at ¶ 19) -- all of which are characterized by some

literature as “solid state” properties of compounds. (See D.I. 115, p. 10; D.I. 108, Decl. of Wayne J. Genck, Ph.D (“Genck Decl.”) ¶ 52).²

In addition, AstraZeneca concedes that the ’512 application as filed did not include the terms “solid state” or “solid state alkaline salt” (D.I. 155, SOF ¶ 30), that the term “solid state” was first introduced during prosecution (*id.* at ¶ 35), and that they did not tell the Patent Office *where* in the specification there existed support for “solid state” alkaline salts (*id.* at ¶ 38).

2. The Undisputed Facts Compel A Finding That There Is No *Inherent* Disclosure Of "Solid State" Alkaline Salts

Nevertheless, AstraZeneca urges that written description support for “*solid state*” alkaline salts is *inherently* present in the ’504 patent (D.I. 155, AZ’s response to SOF ¶¶ 17, 30, 35, 38), based on the specification’s disclosure of (-)-omeprazole compounds as crystalline salts, white powders, white crystals, amorphous powders, etc., all as *solid* materials. (*Id.* at ¶¶ 14-16.) But “[i]n order for a disclosure to be inherent, ‘the missing descriptive matter must necessarily be present in the [original] application’s specification such that one skilled in the art would recognize such a disclosure.’” *TurboCare Div. of Demag Delaval Turbomachinery Corp. v. General Electric Co.*, 264 F.3d 1111, 1119 (Fed. Cir. 2001). AstraZeneca’s *inherency* argument thus requires the Court to accept that the disclosure of the powders, salts, crystals, etc. as *solids* would reasonably convey to those skilled in the art that the patentees had possession of the claimed *solid state* salts as of the filing date.

But AstraZeneca’s argument must fail because -- as set forth in Hanmi’s Opening Brief -- the term “solid state” is not defined at all, let alone precisely defined as a “solid.” In the

² AstraZeneca misrepresents that it had no opportunity to depose Dr. Genck and that a deposition may reveal disputed issues of material fact. Plaintiffs never requested Dr. Genck’s deposition in the two-month period it took to respond to Hanmi’s summary judgment motions. Further evidencing the lack of any genuine dispute of material fact, AstraZeneca repeatedly *refused* to make its own declarant, Dr. Davies, available for examination on the content of his declaration (D.I. 175) in support of its various opposition papers. (Ex. 1 to Rathinam Declaration.)

pharmaceutical field, the term has been used in many different ways, confirming that “solid state” has no single meaning to those skilled in the art. For example,

- the term “solid state” means materials existing in a *single or crystalline phase, and even to the properties associated with that phase* (D.I. 115, p. 10);
- authors have also used the term “solid state” to refer to *properties* of polymorphs, hydrates, amorphous forms and desolvated solvates as including, *e.g.*, chemical and physical stability, solubility, morphology, calorimetric behavior, hygroscopicity, glass transition temperature, etc. (D.I. 115, p. 10);
- AstraZeneca’s U.S. Patent No. 6,143,771 (Ex. 3)³ uses the term “solid state” to refer to *dissolved compounds in solution* (discussed below);
- AstraZeneca’s U.S. Patent No. 6,225,287 (Ex. 4) uses the term “solid state” to refer to *highly stable solid forms, excluding amorphous solid forms* (discussed below); and
- AstraZeneca’s Dr. Davies includes within the scope of “solid state” the enantiomers of omeprazole obtained as *syrups* in the ’504 patent (discussed below).

Because it is undisputed that “solid state” has no single meaning to those skilled in the art, the disclosure of solids in the ’504 patent cannot be an inherent disclosure of “solid state” alkaline salts, confirming the lack of written description support for “solid state” salts.

AstraZeneca’s U.S. Patent No. 6,143,771⁴ (Ex. 3) contains claims directed to a solid state salt of (-)omeprazole: in an injection solution (Claim 2), in a formulation for parenteral administration (Claims 1-7), in a solvent as pharmaceutically acceptable carrier (Claim 9), in a pharmaceutically acceptable solvent (Claims 2-4, 12), and in a solution (Claim 11). The ’771 patent, whose specification is identical to the ’504 patent, thus used “solid state” to include a salt of (-)omeprazole as existing in solution, after being dissolved, for parenteral administration, as injectable solutions, and in pharmaceutically acceptable solvents. (*Compare* D.I. 86-2, ’504 Patent *with* Ex. 3). By AstraZeneca’s own actions -- ***on the intrinsic record of the ’504 patent --***

³ Each exhibit referenced is attached to the concurrently filed Declaration of Renita S. Rathinam.

⁴ As shown on the face of the ’771 patent, it is part of the ’504 patent's intrinsic record, since AstraZeneca filed a continuation application based on the ’512 application, Serial No. 08/899,931; the ’931 application was abandoned, but prosecution was continued in a separate application, Serial No. 09/419,456, which issued as ’771. The ’771 patent has the same specification as the ’504 patent, lists the same inventors, and is assigned to AstraZeneca.

a “solid state” (-)omeprazole salt can exist dissolved in injectable solutions, where any lay person knows they are clearly not “solid materials.”

AstraZeneca’s U.S. Patent No. 6,225,287 (Ex. 4) is entitled “Crystalline Forms,” is directed to “new solid state forms of a drug” (Col. 1, line 1), and contains 46 claims requiring substantially crystalline material. The ’287 patent explains that solid state stability of the active ingredient is a very important factor for product storage, so that no significant change in the active component’s physico-chemical characteristics (*e.g.*, its chemical composition, density, hygroscopicity and solubility) would occur. (Col. 1, ll. 24-31.) In the ’287 patent, AstraZeneca further explains that the “*solid state*” *forms of the drugs that are the subject of the patent do not include amorphous materials*:

Amorphous materials may present significant problems in this regard. For example, such materials are typically difficult to handle and to formulate, provide for unreliable solubility, and are often found to be unstable and chemically impure. (Col. 1, ll. 34-39).

The skilled person will appreciate that, if a drug can be readily obtained in a stable crystalline form, the above problems may be solved. (Col. 1, ll. 40-42).

AstraZeneca’s use of “solid state” to describe forms of a drug that exclude amorphous forms -- because skilled persons would know the significant problems using amorphous forms -- undermines its present position that solid state forms clearly include amorphous forms.⁵

Dr. Davies’ statement that “the ’504 patent and its Examples disclose pure solid state enantiomers of omeprazole and methods for making pure solid state enantiomers of omeprazole” (D.I. 157, Davies Decl. ¶¶ 96, 156) further discredits AstraZeneca’s proposal that solid state

⁵ It is irrelevant that the ’287 patent issued after the 1994-1995 timeframe. AstraZeneca stated that “[b]y May 28, 1993, the study of the solid state chemistry of drugs was an established scientific discipline.” (Davies Dec. ¶82). As such, the description of solid state and amorphous forms in the later-issued ’287 patent would nevertheless have been understood by a person of ordinary skill in the art earlier, in the 1994-1995 timeframe, since solid state drug chemistry was an established scientific discipline in 1993. *Id.*

simply means “solid material.” The only *enantiomers* and preparations of *enantiomers* of omeprazole disclosed in the ’504 patent are obtained as “syrups.” (D.I. 86-2, Examples 12, 13). Dr. Davies’ inclusion of “syrups” within the scope of “solid state” materials confirms that there is no single art-recognized meaning of “solid state.” (D.I. 108, Genck Decl. ¶¶ 45-48.)

Based on these undisputed facts, summary judgment is proper because there is no written description of “solid state” alkaline salts in the ’512 patent application as filed. *Centocor Ortho Biotech v. Abbott Labs.*, 636 F.3d 1341, 1347 (Fed. Cir. 2011). AstraZeneca has not and cannot show *possession* of “solid state” alkaline salts where there is no express description, definition, or disclosure of “solid state” alkaline salts in the ’512 application as filed, and any inherency argument is contradicted by the multiple ways the undisputed record establishes that “solid state” is used in the intrinsic record and the pharmaceutical domain in general.

Having *conceded* there is no express disclosure of solid state alkaline salts in the ’504 patent and having *failed* to demonstrate inherent support for the term, AstraZeneca appears to urge that written description support would be *obvious* to persons skilled in the art based on the disclosure of solids in the ’504 patent.⁶ But the standard is not “not whether a claimed invention is an obvious variant of that which is disclosed in the specification,” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997), or “whether one skilled in the art might be able to construct the patentee’s device from the teachings of the disclosure. . . . Rather, it is a question ***whether the application necessarily discloses that particular device.***” *Martin v. Mayer*, 823

⁶ See, e.g., D.I. 155, AZ’s response to SOF ¶¶ 30, 31 (“it *would have been apparent* to one of ordinary skill in the art in 1993 that crystalline alkaline salts of as omeprazole are in solid state.”); *id.* at ¶ 16 (“it *would have been clear to one of ordinary skill in the art* in 1993 that the products obtained in examples 1-5 are in solid state.”); *id.* at ¶ 28 (“[c]rystals are solid material, and thus it would have been clear to one of ordinary skill in the art in 1993 that the compounds claimed in original claims 5 and 6 are in solid state.”); AZ SOF ¶ 113 (“[i]t *would have been apparent* to one of ordinary skill in the art in 1993 that crystalline alkaline salts of (–)-omeprazole are in solid state.”) ; see also AZ SOF ¶¶ 113-137.

F.2d 500, 505 (Fed. Cir. 1987) (emphasis added). Obviousness is not the standard. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299 (Fed. Cir. 2008).

3. **AstraZeneca Has Waived Its Right To Seek Claim Construction**

AstraZeneca asserts that Motion 3 raises an issue of “claim construction” as to the meaning of “solid state.” That is incorrect. In reliance on the Court's prior rejection of solid state as meaning “solid form rather than liquid, such as syrup or oil” (D.I. 106, ¶¶ 65-66), and in view of the lack of any disclosure or discussion of the term in the '512 application as filed, Hanmi asserted lack of written description, non-enablement and indefiniteness defenses in its May 25, 2011 invalidity contentions (D.I. 87-1, pp. 73-76 and 80-81). Hanmi's contentions make clear that it never agreed that there is *a single art-recognized meaning* of the term -- indeed, Hanmi took the position in its contentions that there are multiple uses of the term. Both then and now, ***Hanmi has no claim construction to proffer***, because the intrinsic record provides no single clear meaning and the art uses the term in various ways, as established on this summary judgment record, including the section immediately above.

Instead, it is ***AstraZeneca*** that has waived its right to seek a “claim construction.” With Hanmi's “solid state” invalidity contentions in hand, AstraZeneca let every *Markman* deadline in the case pass without mentioning “solid state.” Only when faced with a judgment of invalidity does AstraZeneca ask the Court to reconsider its previously dismissed construction. To permit AstraZeneca to do so now would frustrate judicial economy and make a mockery of the Local Rules and the orderly case schedule established by the Court. Nonetheless, Hanmi shows below that AstraZeneca's proposed construction is incorrect.

AstraZeneca has asked the Court to construe the term “solid state” to mean “solid material.” (D.I. 152, Opp. 10.) Previously, both AstraZeneca and Dr. Reddy's proposed

essentially the same construction -- that “solid state” be defined as a “solid form.”⁷ This Court rejected both parties’ proposals, stating that “[AstraZeneca] provide[d] no justification for the language that distinguishes a ‘solid form’ from a ‘liquid, such as, a syrup or oil’” (D.I. 106, SOF ¶¶ 65-66) and stated that the plain meaning of the term as understood by one of ordinary skill would apply.

Now, AstraZeneca resurrects the same construction that was rejected previously -- and casts its definition as the “plain and ordinary meaning” of the term as construed by this Court. Having once failed to demonstrate that “solid state” is defined as a “solid form,” AstraZeneca cannot now argue the plain and ordinary meaning of “solid state” is “solid material.”

Substantively, Dr. Davies cites nothing in support of his view that *solid state* has an “art accepted meaning” of *solid material* -- no literature references, no intrinsic or extrinsic sources, or any other source. (D.I. 157, Davies Decl. ¶ 80). He opines that “by May 20, 1993, the solid state chemistry of drugs was an established scientific discipline.” (Davies Decl. ¶ 82). The contrary is true. A 1994 scientific article states that “[o]rganic solid state chemistry is still a sporadic discipline.”⁸ If Dr. Davies were correct, ample scientific and technical literature would be available to show the precise meaning of “solid state.” None is cited. Instead, the record establishes that the pharmaceutical field used “solid state” to variously refer to phases of matter, or particular properties of compounds, and that AstraZeneca itself has used the term to refer to salts dissolved in solution, as crystalline solid materials but excluding amorphous ones, and as including syrups. *See* D.I. 115, p. 10 and section II.A.2. above.

4. AstraZeneca’s Reliance On The Prosecution History Is Irrelevant

Contrary to AstraZeneca’s arguments, the patent examiner’s views during prosecution

⁷ *AstraZeneca AB v. Dr. Reddy's Labs., Ltd., et al.*, 2010 U.S. Dist. LEXIS 48844, *26-27 (D.N.J. May 17, 2010).

⁸ Gavezotti, *et al.*, “Are Crystal Structures Predictable?” *Acc. Chem. Res.* 27, 309-314 (1994) (D.I. 112-16 p. 314).

regarding compliance or noncompliance with section 112 are not dispositive after a patent's issuance, because the challenger always must demonstrate invalidity of what starts out as a government-sanctioned patent. *ICN Photonics, Ltd. v. Cynosure, Inc.*, No. 02-1582, 2003 U.S. App. LEXIS 14512, at *12 (Fed. Cir. July 16, 2003) ("We have on occasion invalidated patent claims for including new matter, despite the PTO's having allowed those claims.").

AstraZeneca asserts the Examiner *endorsed* the "solid state" language of the claims (D.I. 152, Opp. 12), considered the term "solid state" to comply with Section 112 (D.I. 155, AZ SOF ¶ 104), and stated the "solid state language was allowable." (AZ SOF ¶ 105). First, the patent examiner didn't *endorse* anything. The Examiner Interview Record in the '512 application says nothing more than "pharmaceutical formulations for oral administration of pure solid state (-) enantiomer Na salt may be allowable after reviewing the data in affidavit form, and that the scope of the claim would depend on the data submitted." (D.I. 106, SOF ¶ 36) (emphasis added). Read fairly, the examiner's statement was limited to a single salt (the Na salt), was conditioned on her favorable consideration of data in a declaration which she did not yet have, and cautioned that claim scope would depend on the unsubmitted data. That is hardly an *endorsement* of the claims.² Second, there is no indication the examiner considered the term "solid state" to comply with Section 112. *The record is devoid of any discussion of support for that term.* Finally, the examiner never said a claim "would be allowable" (D.I. 155, AZ SOF ¶ 99; D.I. 156, Goffney Decl. ¶ 38) or "was allowable" (AZ SOF ¶ 105; Goffney Decl. ¶ 39) simply by including the term solid state in the claim. (AZ SOF ¶ 99.) The examiner said only that the sodium salt of (-) omeprazole *may be allowable* upon review of data that AstraZeneca had not yet submitted. (See D.I. 106, SOF ¶ 36.)

² To the contrary, the examiner did not appear to even have a copy of the later-presented claims at the interview. If "solid state" was proposed by the Examiner during the January 21, 1997 interview (AZ's response to SOF ¶ 37; Goffney Decl. ¶ 38), the examiner did not have claims before her to consider for compliance with Section 112.

B. AstraZeneca Has Failed To Raise A Genuine Issue Of Material Fact Precluding Summary Judgment That The Asserted Claims Of The '504 Patent Are Invalid For Lack Of Enablement

Section 112 requires that the full scope of the invention must be enabled -- not merely some examples that might be useful as a starting point for research -- and that the disclosure must teach one of skill in the art *to make and to use* the invention without undue experimentation. *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005). AstraZeneca's opposition fails to comply with either of these basic requirements.

1. The '504 Patent Fails To Teach One How To Make Or Use The Full Scope Of The Invention

Because "solid state" alkaline salts are nowhere mentioned or defined in the '504 patent or the '512 application as filed, its scope is literally unbounded. As a direct consequence, a person of ordinary skill cannot make and use the full scope of the claimed subject matter based on the disclosure of the '504 patent. (D.I. 115, Opening Br. 12-21.)

AstraZeneca's case hinges on the Court adopting non-disclosed "solid state" to mean "solid material." As set forth above, the Court should not adopt that view, because "solid state" has no single meaning to those skilled in the art, and has been referred to as including phases, properties, crystalline solids excluding amorphous forms, salts dissolved in solution, and syrups.

There is no serious dispute that the *full scope* of "solid state" alkaline salts of (-)-omeprazole cannot be made and used as claimed based on the '504 patent disclosure. AstraZeneca's Dr. Davies expressed specific doubt about whether an ammonium salt of (-)-omeprazole could even be prepared, stating that "*I don't know but I would be surprised if it was, if you could form it -- so I -- if ammonium is NH₄ plus I'd be surprised.*" Dr. Davies explained an ammonium salt would be within the scope of he claims, "*if you could form the salt. So it's a salt within my definition, yes, if it can be formed.*" (Ex. 2,¹⁰ Davies Tr. 141) (emphasis added).

¹⁰ Selected Excerpts from the 12/6/11 Deposition Transcript of Dr. Davies ("Davies Tr.").

Dr. Davies also expressed doubt as to whether a tetrabutyl ammonium salt -- plainly within the scope of the claims -- could even form a solid salt, stating “I'm sure it can form a salt. *Whether it can form a solid salt I don't know.*” (Davies Tr. 142) (emphasis added). Prof. Davies' doubt as to whether certain solid salts of (-)-omeprazole could even be formed makes clear that the '504 patent does not teach a person of ordinary skill how to make and use the full scope of the claims. *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1354 (Fed. Cir. 2007). Dr. Davies and Dr. Genck agree on this point. *Id.*; D.I. 108, Genck Decl. ¶¶ 59-60.

2. Undue Experimentation Would Be Required To Make And Use The “Solid State” Alkaline Salts Of The '504 Patent Claims

It is unclear whether many of the “solid state” alkaline salts of (-)-omeprazole could be made by the procedures of the '504 patent. (*see* D.I. 115, Opening Br. 18-20; D.I. 108, Genck Decl. ¶ 59-61.) Two different procedures of how to make inorganic salts are provided and the '504 patent does not inform one skilled in the art why or when to select one procedure over another. (Genck Decl. ¶ 60). The '504 patent does not direct those skilled in the art which procedure should be used to prepare other, undisclosed salt species, and whether or how to determine if they are “solid state.” (Genck Decl. ¶ 61). Where the level of guidance in the '504 patent does not permit Dr. Genck or Dr. Davies to know whether the claimed “solid state” salts can be formed at all, persons of ordinary skill clearly cannot make and use the claimed salts without undue experimentation.

C. AstraZeneca Has Failed To Raise a Genuine Issue Of Material Fact Precluding Summary Judgment That The Asserted Claims Of The '504 Patent Are Invalid For Indefiniteness

Plaintiffs incorrectly urge that Hanmi's indefiniteness motion is foreclosed by the Court's prior ruling because the plain and ordinary meaning of "solid state" would be "clear" to those of ordinary skill in the art. (D.I. 155, Opp. 9). Plaintiffs' asymmetrical argument should be rejected. If Plaintiffs were correct: (1) they too are bound by the Court's previous ruling and are

equally foreclosed from now seeking a new construction of “solid state,” and (2) their previous construction would have been accepted by the Court -- rather than rejected -- since their previous construction was essentially identical to their present proposal.

Because Plaintiffs’ sole basis for opposing Hanmi’s indefiniteness challenge requires application of a previously rejected construction of “solid state,” their opposition must fail.

III. CONCLUSION

For the foregoing reasons, the Court should grant Hanmi's motion for summary judgment of invalidity of claims 1-7 and 10 of the '504 patent for failure to meet the enablement, written description, and definiteness requirements under 35 U.S.C. § 112.

Dated: December 30, 2011

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CERTIFICATE OF SERVICE

I hereby certify that on December 30, 2011, I caused a copy of the foregoing
DEFENDANTS' REPLY BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT
NO. 3: INVALIDITY OF ALL ASSERTED CLAIMS OF U.S. PATENT NO. 5,714,504
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